

## Detailed Instructions for DINITROL Vehicle Glass Replacement

DINITROL urethane products are for professional use only. Certification is required either from EFTEC Aftermarket directly or via an EFTEC Aftermarket Certified Gold-Trainer.

Visit [www.eftecna.com](http://www.eftecna.com) for the latest version and always check the revision date in the upper right hand corner with each set of instructions.

Refer to the product Technical Data Sheets (TDS) for additional technical information. Read all Material Safety Data Sheets (MSDS) for each of the products obtained and to be used. Follow all safety instructions and recommendations. By federal law, OSHA requires a MSDS be present or immediately available with each urethane, primer and activator product.

Instructions published on [www.eftecna.com](http://www.eftecna.com) take precedence over any other written or published instructions by EFTEC Aftermarket.

**1. Read all the instructions** listed before starting any phase of the glass installation. Always wear proper safety gear as specified in each MSDS for each product to be used or handled. (Visit: [www.eftecna.com/msds.html](http://www.eftecna.com/msds.html)) This includes and is not limited to: proper fitting and approved safety goggles, nitrile gloves, and specific types of respirators when required due to poor ventilation.

**2. Follow the car manufacturer's instructions** for removal and replacement of the desired glass. Instructions may specify a certain type of urethane like High Modulus or low conductive. Select the appropriate DINITROL urethane that meets the specific requirement for the given vehicle, see the technical summary chart in the DINITROL Vehicle Replacement binder or at [www.eftecna.com](http://www.eftecna.com). For cold weather installations at 0°F or above use D-506 or D-9000.

**3.** Unless specified by the specific DINITROL product, the glass replacement should not take place in temperatures that are less than 5° C (40° F). Likewise if the temperature is extremely high >45° C (>115° F) then do the replacement in an air-conditioned shop to moderate environmental conditions.



**4.**

Make sure the car is securely parked and level. (all 4 wheels on the same plane.) Before trimming down the original urethane bead, be sure to remove all dust and debris from pinchweld. Unless specified by the car

manufacturer, use the **full cut out method** cutting the original urethane bead down to approximately 2 millimeters (1/16 inch) attached to the pinch-weld. Do not damage the paint system. Ensure no adhesion failure at the base of the original urethane bead. Any sign of adhesion failure of original urethane bead will require removal of existing bead. **If rust or corrosion exists in the pinchweld, this must be removed or repaired prior to applying any DINITROL Adhesive or primer.** (refer to the DINITROL Corrosion/rust repair instructions) Visit [www.eftecna.com/rust](http://www.eftecna.com/rust)

**5. Again ensure all bonding areas are free of dirt**, debris, solvents, silicone, butyl tape, or other foreign substances. DINITROL urethane is compatible only with OE grade auto glass urethane.

**6. Pre-set** the new glass to ensure proper fit. If the glass will not fit properly do not attempt to make it fit. Order a new one. If the glass to be installed has a (PAAS) Pre-Applied Adhesive System, PVC or Urethane RIM encapsulation, DINITROL 538 Plus, 540 or 560 is required to ensure adhesion to those substrates. Refer to the appropriate Technical Data Sheets for instructions.

**7. Pinch-Weld Preparation:** There are two objectives to consider in determining if the pinchweld needs primer. First, if the pinchweld has scratches or bare metal exists, then it needs to be protected from corrosion with a rust inhibitor. Second, if there is not a previously set or cut bead of urethane with which the new urethane is to bond, then the pinchweld surface needs to be prepared and primed before new fresh DINITROL urethane is applied.

Be sure to clean all dirt, debris, oils, etc. prior to trimming the existing bead

of urethane on the pinchweld to approximately 2 millimeters. If already trimmed and further cleaning is required, use only pure water as a cleaning agent to remove dust or debris from the bonding surface of the old urethane.



**8.** Get pinchweld primer ready. Use either DINITROL 538 plus, D-530 or D-528 as pinchweld primer. Ensure the steel balls in the primer bottle are free from the settling carbon black at the bottom. Shake the bottle vigorously until the steel balls have come loose and rattle inside and then shake for 1 minute. 1 minute shake time is required prior to each installation to ensure the substances are well mixed. Ensure the primer is within shelf life stated on each packaged unit. Never use an expired product. Apply pinchweld primer to areas that have been scratched and/or areas that have bare metal exposed or areas where there is no remaining urethane in which the new urethane will be in contact. However, avoid getting pinchweld primer or any solvent on the fresh cut old urethane bead. Allow the pinchweld primer to dry for 10 minutes. Always replace primer lids immediately ensuring that the seal is in place. Keep primer lids closed tight immediately after use. For rust, corrosion, and/or pinchweld repairs visit [www.eftecna.com/rust](http://www.eftecna.com/rust) for specific instructions.

**Note:** If the vehicle requires body repair work and has to be painted, do not trim the original urethane down to the 2 mm until after it has been painted or make sure that the pinch weld or flange is masked off. If the vehicle does come back with new panel sections including the pinch weld, and is freshly painted, the paint must be dry prior to priming. After the paint system has dried completely, it will only require scuffing with sandpaper or steel wool. After removing the dust from sanding or scuffing (use pure water to clean off dusting) and after it has dried sufficiently apply DINITROL 538 Plus, D-530 or D-528 to the bonding surface. Allow 10 minutes for primer to dry. If covering larger sections of bare metal 1/2" x 1/2" and greater, a second layer of 538 Plus, D-530 or D-528 is required. Please be sure to allow an additional 10 minutes of drying for the second coat prior to applying adhesive. If bonding directly to e-coat, lightly scuff the e-coat prior to applying primer.



**9. Glass Preparation:** Clean the entire glass with a thick layer of any industry approved glass cleaner like SPRAYWAY. Spray on a generous film of the glass cleaner to the entire surface of the glass especially the bonding area of the glass. Wipe off film with a dry lint free towel. Repeat the wiping/drying process until clean and dry. **Repeat the cleaning process as necessary** until all film or residue on the bonding surface of the glass has been removed. Encapsulated glass units such as DW1217, 1123, 1124 etc. are more likely to have a film on the glass from the manufacturing process that is more difficult to remove. Wet scrub may be required or a cleaning agent such as Heptane, IPA or MEK may be needed to remove such films. These agents are available at your local hardware store. Use only as directed by the manufacturer of the product and follow all safety recommendations. Be sure that the glass unit is sufficiently clean on the bonding surface and properly prepared ensuring no contaminants such as dirt, dust, oil, release agents, etc exist before apply-

ing primer. If replacing the original glass in the same vehicle, make sure that the urethane is firmly intact and then trim the urethane down to approximately 2 mm. If the original urethane on the glass has lost integrity or is not firmly in tact, carefully remove all the urethane with a razor blade. Next, use a scotch brite or scrubbing pad with approved glass cleaner and scrub the remaining film of urethane and primer off of the glass. Then wash the entire glass clean and wipe dry. If the original primer and urethane does not come off the glass completely after this type of process, order a new glass.



**10.** With a clean unused dauber, acid brush or equivalent, wipe on the D-520 to the bonding area. On a wider frit band when it may be difficult to determine just where the new urethane will make contact, apply a much wider lane of black primer on glass to better ensure contact with the urethane. (D-520 is a required step before applying D-530) Allow a few seconds for activation/cleaning and wipe it off using a clean, dry, lint free cloth or paper towel. Wipe D-520 dry before evaporation. (D-520 may be used prior to the use of 538plus and D-528 to help ensure a cleaner surface and maximum bonding)

**11.** Use either 538plus, D-530 or D-528 as glass blackout primer. Shake the bottle vigorously until the steel balls have come loose and rattle inside. Shake for an additional minute. **Apply blackout primer on the black ceramic frit** (or area of glass where the urethane will make contact if no black frit exists). Use a fresh clean dauber, acid brush or equivalent to wipe on a smooth continuous lane of primer on the glass/frit in the same location the urethane bead will make contact. **Always close lid (with its seal in place) tightly after each use.** Allow the DINITROL primer to dry 10 minutes. If the primer must be applied in temperatures lower than 40°F, allow at least 20 minutes for the primer to flash and dry and is no longer wet.

**12.** Using the DINITROL Hygrometer /Thermometer or other industry approved device, record the current

humidity and temperature level. Also, record all other important information including VIN (vehicle identification number), the date of installation, expiration date and batch number of each primer and urethane used for the given installation. Keep records accurate, orderly and safe. EFTEC Aftermarket recommends using an inspection sheet for record keeping. Click on the following link to download the inspection sheet. [www.efteca.com/inspectionsheet](http://www.efteca.com/inspectionsheet).

A digital photo of preexisting conditions may also prove useful in record keeping of evidence. The expiration date of DINITROL urethane products may be stamped in **DDMMYY** format or written in word form such as April 2003 on each case and cartridge and is batch specific.

**13.** Use the temperature and humidity values to determine the amount of cure time required to meet the safe drive-away-time. Refer to the specific technical data sheet for drive-away time chart.



**14.** Unless otherwise specified by the car manufacturer, apply a triangular bead (V-cut) of the DINITROL urethane to the pre-primed glass or pinch weld equal to the depth of the flange. Carefully connect all starting and stopping points of bead to avoid leaving any gaps.

**15.** Set glass immediately. If too much time has passed before setting the vehicle glass, the urethane may have already cured on the outer surface and good adhesion between the glass and the vehicle will not take place.

**16.** Check for leaks using a professional ultrasonic leak detector. Patch or correct any detected leaks.

**17.** Make sure that the driver and customer of the vehicle for which the windshield has been replaced understands that he/she or anyone else should not drive or ride in the vehicle until such time in which it will meet applicable\* federal safety standards. (To determine these time requirements see **drive-away time charts** on the specific technical data sheets

or section 4 of this manual for the urethane being used.) Meeting the applicable\* FMVSS may not ensure the highest level for safety. Most urethane products take 24 hours or longer to reach full cure. Remind the driver and occupants to always properly wear and fasten their seatbelts!

**18.** Explain to the driver of the vehicle, that for the next couple days, the car should not pass through a car wash and ensure that the car is parked on level ground. (all 4 wheels on the same plane)

**19.** It is also strongly advisable to get the customer's signature acknowledging the down time and potential risk of **death** or **serious injury** if the car is driven and involved in an accident prior to proper curing of the adhesive.

#### **INSTRUCTIONS FOR PAAS / RIM encapsulated parts**

Sand the bonding area lightly and make sure to remove all dust created by sanding. Sanding is necessary to remove any remaining releasing agent that may be left on the surface from manufacturing. Apply a thin film of 538plus to the sanded surface with a clean lint free dauber, acid brush or equivalent. Let dry for 20 minutes above 30°F. Refer to the technical data sheet for more technical information.

Note:\*According to the ANSI/AGRSS 002-2002, applicable FMVSS for Auto Glass replacement does not include FMVSS 216 for drive-away-time. FMVSS 216 is the vehicle rollover safety standard. More than 10,000 fatalities occur each year in the US as a result of vehicle rollovers which may or may not result from a failed vehicle glass or retention system. Many original equipment manufacturers state in their written instructions additional cure times to reach rollover safety after glass replacement. Contact the dealership for the vehicle in question to obtain these written instructions. All up to date OE glass replacement instructions take precedence over instructions written by EFTEC Aftermarket.

Return the following page to EFTEC Aftermarket via Fax at:  
1-866-596-7778

#### **Report Any Product Concerns**

**Toll Free: 1-866-596-7772**

